

# Payments for Environmental Services (PES) in Europe

Mélanie DECAMPS, Cemagref - UMR Métafort  
Elodie VALETTE, Cirad - UMR Tetis

# Outline

- 1) How to define PES ?
- 2) Public PES in Europe
- 3) Initiatives in the private sector
- 4) Discussion



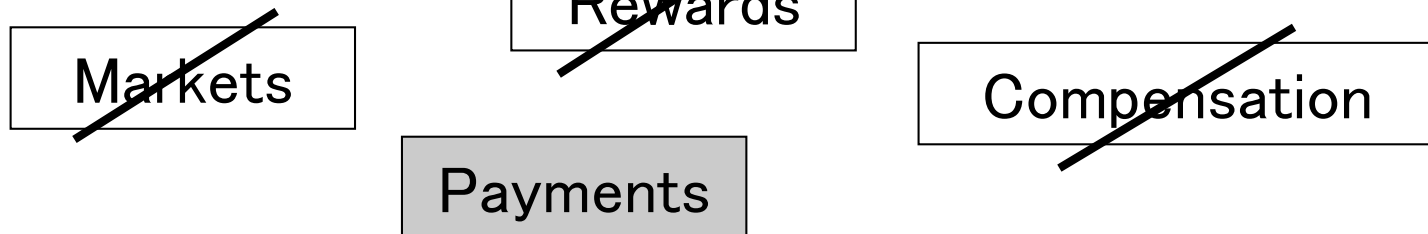
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How to define PES ?

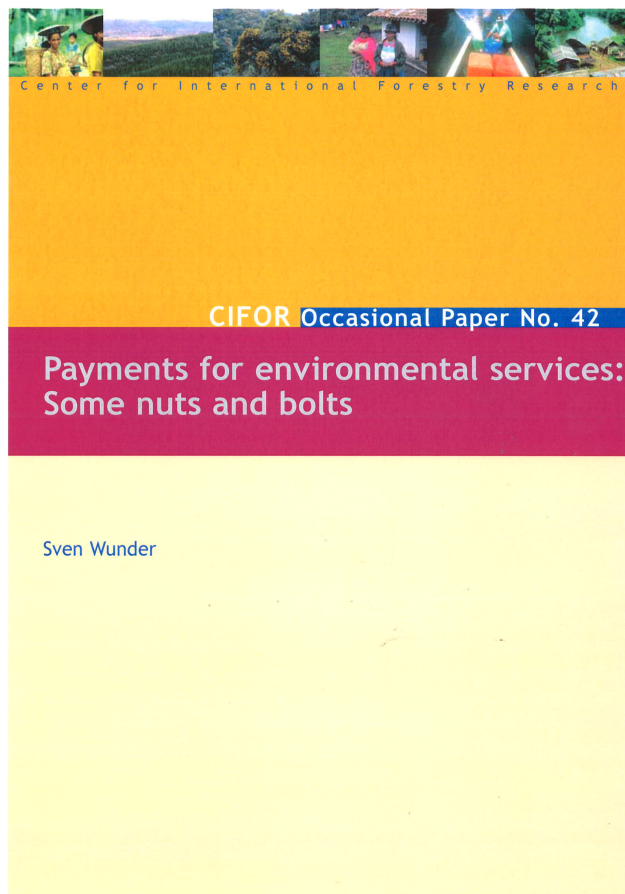


# From ES to PES

- “ES” : two key definitions
  - The *Millennium Ecosystem Assessment (2005)* popularized the concept of ecosystem services introducing four categories : provisioning, regulating, cultural and supporting services.
  - The concept of environmental services is mainly used by economists and policy makers, in a perspective of new policy instruments on environmental issues.
- “P” to qualify the remuneration mechanism



# A theoretical reference to define PES



1. a **voluntary** transaction where
2. a **well-defined ES** (or a land-use likely to secure that service)
3. is being 'bought' by a **buyer** (min. one)
4. from a **ES provider** (min. one)
5. if and only if the ES provider secures ES provision (**conditionality**)



# Different PES types

- **What is the vehicle use to achieve conservation or restoration ?**
  - Area-based schemes
  - Product-based schemes (ex. : organic farming)
- **Who are the buyers ?**
  - Public sector
  - Private schemes
- **Use-restricting vs. asset-building schemes**



# A framework to keep in mind : the main types of possible contracts

- Contracts between the State and a private owner
- Contracts between private stakeholders regulated by the State
- Contracts between private stakeholders without regulation
- Contrats between the service provider and a public or private structure



# A framework to keep in mind : the main types of possible contracts

## Typical PES in Europe

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- Contracts between private stakeholders regulated by the State
- Contracts between private stakeholders without regulation
- Contrats between the service provider and a public or private structure



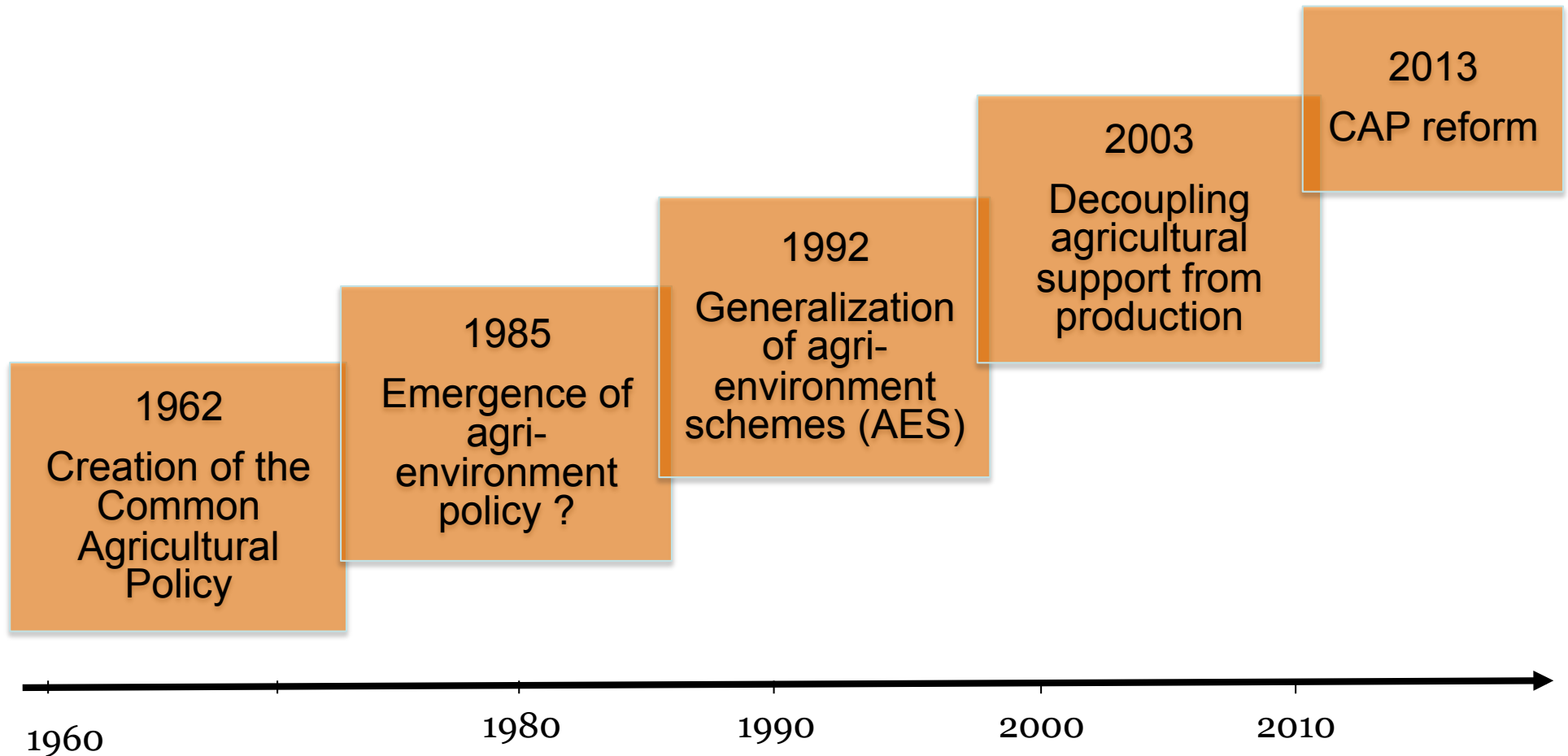


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# Agri-Environment Schemes (AES): the main (public) PES in Europe



# AESs in EU: a recent story

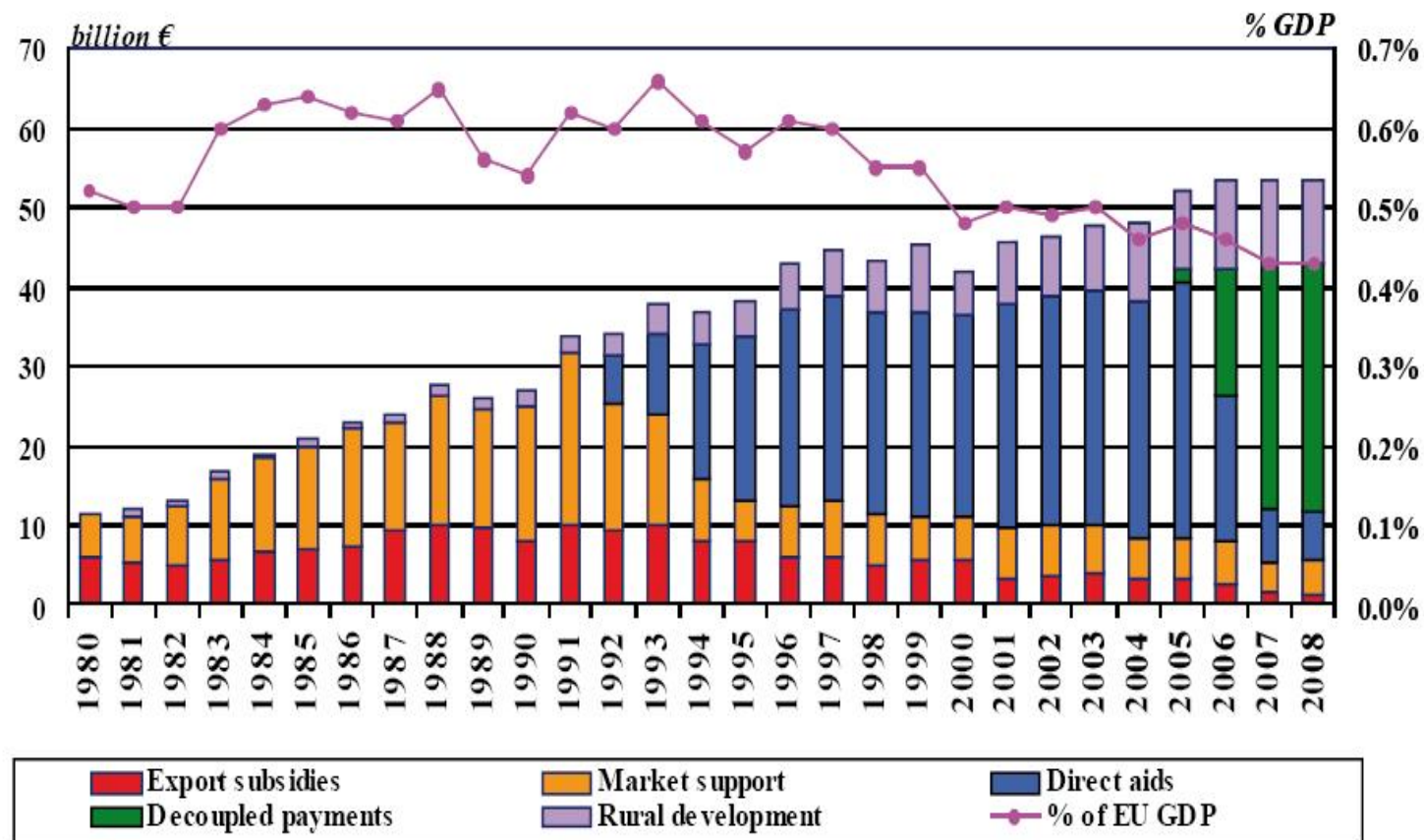


# Principles of the European AESs

- Farmers voluntarily commit themselves to adopt practices that go beyond (or maintain) « good farming practices »
- In return, they receive payments to *compensate* the incurred costs (and not *reward* the good practices)
- These payments are designed to address protection, maintenance and enhancement of natural resources, biodiversity as well as landscape values (see Herzog 2005, OCDE 2003)
- AESs compensate farmers financially for any loss of income associated with measures that aim to benefit the environment or biodiversity.



# CAP expenditure and reforms



# Institutional framework of AESs (1/2)

- **The policy is designed at the European level...**
  - Legal basis for AESs : Regulation (EC) 1257/1999
  - One single framework set by the EU for all member states
  - Some differences between old and new member states, objective-1 areas
  - EU notifies the programmes, finances the AESs and controls the implementations



# Institutional framework of AESs (2/2)

- **...but environmental regulations are introduced at the member state level**
  - Each country adapts AESs via agricultural and environmental ministries and administrations (programming, financing, implementation, control)
  - Semi-public bodies and independant organisations are involved (depending on the level of centralisation or decentralisation)
  - Responsibilities and organisation of regional and local levels differ among (and within) the member state
- **A large number of programmes containing a high variety of measures** (Nitsch et al., 2005)



# Involvement of different policy levels in design and implementation of AES

	EU	National level (ministries)	Regions (admin.)	Local level (admin.)	Civil society organisations	Independent agencies
General objectives and framework conditions for design and implementation of AESs	X	X	C		C	
Design of AESs (programming)		X	X	(X)	C	
Notification	X					
Financing	X	X	X	(X)		
Implementation: - Promotion and advice		X	X	X	(X)	(X)
- Gathering and approval of applications		(X)	X	X		
- Payments		X	X	(X)		
- Control and enforcement		X	X	X		
Control of proper implementation	X					
Monitoring and Evaluation	X	X	X	C	C	X

X: regular involvement; (X): occasional involvement ; C: consultation/participation



# Lessons to be learned from AESs (1/2)

- **From positive results...**
  - when clear targets or objectives have been set (OECD, 2005)
  - localised successes (Oreade-Breche, 2008)
- **...to shortcomings of AES**
  - unclear or imprecise objectives (Bartolini et al., 2005 ; Finn et al., 2007)
  - value-for-money from AES is perceived as insufficient (Hodge, 2001)
  - AES are not targeted with respect to environmental needs (Canton et al., 2009 ; Haaren et al., 2008)
  - lack of training and awareness of the farmers (Gay et al., 2004 ; OECD, 2005)





# Lessons to be learned from AESs (2/2)

- **The AESs programs vary markedly between countries and vary among regions within a country**
  - Some reticent countries at the beginning (Portugal, France, Espagne...)
  - A guarantee of locally-adapted programs...
  - ... but a difficulty to assess reliably the effectiveness of the schemes (Kleijn, Sutherland, 2003 ; Kleijn et al., 2001)
- **Changes to come with the 2013 CAP reform : towards “real” PES ?**



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## Some initiatives in the private sector



# What about the Private Sector ?

- Examples of private-sector programmes (in the world) :
  - payments for voluntary carbon sequestration and biodiversity conservation,
  - payments through intermediaries such as NGOs for the adoption of conservation practices,
  - private purchases of water quality services
  - involvement in ecolabelling initiatives, including ecotourism.
- Very few cases are identified in Europe (see Mulder et al. 2006)



# A French case : Vittel water (1/2)



Vittel :  
harnessing area

- Significant water management problem : Nutrient run-off and pesticides
- Water-related ecosystem service : provision of high-quality mineral drinking water



# A French case : Vittel water (2/2)

- **Objective of the PES** : change of management practices so as to protect Vittel's sources
- **Suppliers** : Dairy farmers
- **Buyer** : Nestlé Waters, which owns the natural mineral water sources of Vittel S.A. in north-eastern France
- **Instruments** : property acquisition and compensation for changing management practices
- Vittel financed investment costs and paid US\$ 230 per hectare and per year for a period of seven years to cover the reduced profitability



# Lessons from the Vittel experience

- Establishing PES programmes is a very complex undertaking.
- Primary reasons for success are not necessarily financial.
- The experience could be replicated.
- PES alone may not be sufficient to guarantee environmental services are provided.
- There is a business case for private sector participation in PES.



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# Discussion



# Summary

- PES in Europe are mainly public PES
- Things haven't turned out as well as they might have
- General tendency for the design of AES
  - more involvement of the environmental administration
  - more participation of stakeholders

➡ Crucial role of local institutions





# An example of local institutions : the French Regional Nature Parks

- What are the Regional Nature Parks ?
  - Inhabited protected areas
  - Two main objectives : economic development and protection of the environment
- A significant (informal) role in the implementation of AES...
  - Mediators between the farmer and the State
  - Positive impact on private transaction costs (borne by the farmers)
- ...becoming more and more formal



# A comparison : AESs in EU vs USA

	Europe	US
<b>Objective</b>	Positive externalities generated by agricultural production  Additional objective : Using agriculture as a driver for rural development	Reducing agriculture's negative externalities
<b>Focus</b>	Methods used	Attainment of environmental goals
<b>Rationale</b>	Market failure, Willingness To Pay for positive externalities	
<b>Implementation</b>	Compensating farmers for the private delivery of public goods	
<b>Targeting</b>	Weak (wide range of positive externalities)	Strong (specific negative externalities)

# AEP in Switzerland : a more efficient policy?

- A lot of decoupled subsidies for agriculture
  - Since 1998, farmers must register in a « National Program of ecological production » to obtain direct payments
  - 7% of the farm area is necessarily an « ecological compensation area »
- Results (part of the agricultural area in 2008):
- 92% integrated production
  - 8% organic agriculture
- A specific visibility of ecological performances on the market via product labels



# Some key references

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Thank you for your attention



# Serena in few words

- An international research program mobilizing social sciences (economy, agro-economy, sociology, political science, geography,...)
- A 4 years program (2009-2012) gathering more than 35 researchers from 7 French research institutions and 2 other country (Costa Rica, Madagascar).
- Funding by the French National Agency for Research (ANR)

- Coordination :  Institut de recherche pour le développement

 Serena  
Services environnementaux  
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# Analytical framework

